BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

Name of work: Estimate for Improvements to Roads and Drains at 4th and 5th Cross Jai Hanuman Layout in Ward No. 09, Vidyaranyapura.

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
							Est Cost Rs.		1500000.00
1	KSRRB 300 - Excavation for road, drains and similar works KSRRB 300-1. Earthwork **excavation by manual means in ordinary** soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications. MORTH / Chapter 3 **Page No. 142 / Item No. 19.1, PWD SR 2016-17**	Cum							
	Sub Cross Between 4th and 5th		2	73.00	1.00	0.90	131.40		
	For Culverts		1	6.50	1.50	1.20	11.70		
	Basic Rate	82.00					**143.10**	199.36	**28529.00**
	Add loading and unloading Charges **It No 17.1 KSRRB M 100-1**	68.00							
	Average weight of earth 1.28 tonne / kg for 11.90 Km = 1.28 T X 11.90Km X 2.5 / km= 38.08	38.08							
		188.08							
	Area Weightage @6%	11.28							
	Total	**199.36**							
2	KSRB 4-1.3 : Providing and laying in position **plain cement concrete of mix 1:4:8** with OPC cement @ 180kgs, with 40mm and down size graded granite metal coarse aggregates @0.85cum and fine aggregates @ 0.57cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, **in foundation**, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. **Page No.12, Item No. 4.3 of PWD SR 2016-17**	Cum							
	Sub Cross Between 4th and 5th		2	73.00	1.00	0.15	21.90		
	For Culverts		1	6.50	1.50	0.15	1.46		
	Basic Rate	4867.00					**23.36**	5159.02	**120528.00**
	Area Weightage @ 6%	292.02							
	Total	**5159.02**							
3	KSRB 4-6.4 : Providing and removing **centering, shuttering, strutting, propping** etc., and removal of form work for **vertical surface such as walls at any thickness**, including attached pilasters, buttresses, plinth cills and string courses cost of all materials, labour complete as per specifications. Specification No. KBS 4.6.2 **Page No. 15 / Item No. 4.31 PWD SR 2016-17**	Sqm							
	Sub Cross Between 4th and 5th Side Walls		2x4	73.00		0.60	350.40		
	Culvert		1x4	6.50		0.90	23.40		

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Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
	Basic Rate	293.00					**373.80**	310.58	**116095.00**
	Area Weightage @ 6%	17.58							
	Total	**310.58**							
8	Providing and laying **cement concrete** using 20 mm and down size granite coarse aggregates and fine aggregates of ready mixed concrete **(RMC) M 20** for R.C.C works laid in 15 cms thick layers and well compacted vibrating, curing, **for raft foundation column footing , main and secondary beams** with all lead and lifts etc., complete (exclusive of cost of steel and fabrication charges.) **Page No. 18, Item No. 4.48, PWD SR 2016-17**	Cum							
	For CC Drain Bottom		2	73.00	0.90	0.15	19.71		
	Culvert		1	6.50	1.50	0.15	1.46		
	Side Wall		2x2	73.00	0.15	0.60	26.28		
	Side Wall Culvert		2	6.50	0.30	0.90	3.51		
	Basic Rate	5879.00					**50.96**	6231.74	**317585.00**
	Area Weightage @ 6%	352.74							
	Total	**6231.74**							
9	KSRB 4.9.2 : Providing **T.M.T steel reinforcement for R.C.C work** including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3 - **TMT bars Fe 500 Page No. 17 / Item No. 4.46.2, PWD SR 2016-17**	Tonne							
			0.06	50.96	60 Kg/cum		**3.06**	64243.42	**196440.00**
	Basic Rate	60607.00							
	Area Weightage @ 6%	3636.42							
	Total	**64243.42**							
10	Providing **precast slab of 250 mm thick** including cost of all materials, labour, curing, transportation, loading unloading, etc., complete as per the direction of engineer in charge- Data rate	Sqm							
	Culvert Deck Slab		11	1.50	0.60		9.90		
							9.90	5125.00	**50738.00**
11	Providing **precast slab of 100 mm thick** including cost of all materials, labour, curing, transportation, loading unloading, etc., complete as per the direction of engineer in charge- Data rate	Sqm							
	RCC Drain Covering Slab		241	0.60	0.90		130.14		
							130.14	1820.56	**236928.00**

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No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
15	KSRRB 300-47. Scarifying kankar / gravel / metal crust upto 150mm thick with pick axes and disposal of stuff including cost of all labour charges complete as per specifications. MORTH / Chapter 3 **Page No. 147 / Item No. 19.53 PWD SR 2016-17**	Sqm							
	Sub Cross Between 4th and 5th		1	73.00	5.00		365.00		
							365.00	26.50	**9673.00**
	Basic Rate	25.00							
	Area Weightage @ 6%	1.50							
	Total	**26.50**							
16	KSRRB M400- Wet Mix Macadam KSRRB M400-17. Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406 **Page No. 158 / Item No. 20.18, PWD SR 2016-17**	Cum							
	Sub Cross Between 4th and 5th		1	73.00	5.00	0.23	83.95		
	Basic Rate	1668.00					**83.95**	1768.08	**148430.00**
	Area Weightage @ 6%	100.08							
	Total	**1768.08**							
17	KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications. MORTH Specification No. 502 **Page No. 161 / Item No. 21.6, PWD SR 2016-17**	Sqm							
	Sub Cross Between 4th and 5th		1	73.00	5.00		365.00		
	Basic Rate	26.00					**365.00**	27.56	**10059.00**
	Area Weightage @ 6%	1.56							
	Total	**27.56**							
18	KSRRB M500-19. Providing and laying **bituminous concrete 40 mm thick** with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 500.9 complete in all respects complete as per specifications. MORTH Specification No. 509 - using 40/60 TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 45 mm) with 6 % VG-30 Bitumen **Page No. 165 / Item No. 21.22.6, PWD SR 2016-17**	cum							
	Sub Cross Between 4th and 5th		1	73.00	5.00	0.040	14.60		

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Description of item	Unit	No	L	B	D	Qty	Rate	Amount
Basic Rate	6683.00					14.60	7083.98	103426.00
Area Weightage @ 6%	400.98							
Total	7083.98							
Sub Total								1338431.00
Tender Premium @ 10%								133843.00
Third Party Inspection Charges @ 1%								13384.00
Labour Cess Charges @ 1%								13384.00
Add for unforseen and rounding off	L/S							958.00
							Total	1500000.00
Rupees Fifteen Lakh(s) Only								

ertificate:

1 The work spot has been inspected and the work is found necessary.
2 This estimate is prepared as per P.W.D S.R of 2016-17.
3 This work included under 2016-17 P-3120 Special Grant.
4 The provisions were made in this estimate are necessary and adequate.
5 This works come under B.B.M.P. limits.

Assistant Engineer
Ward No. 09

Assistant Executive Engineer
Bruhat Bangalore Mahanagara Palike
Vidyaranyapura Sub Division

Executive Engineer
Bruhat Bangalore Mahanagara Palike
Byatarayanapura Division
25/10

TECHNICAL SANCTION
Accorded For Rs. Fifteen lakhs only
Head of A/c. P-3120
Div. Ref. No. 31/17-18 Date. 25/10/17
AE 25/10
EE(BTP) 25/10

ADMINISTRATIVE APPROVAL
Accorded For Rs. Fifteen lakhs only
Head of A/c. P-3120
Div. Ref. No. 36/17-18 Date. 25/10/17
AE 25/10
EE(BTP) 25/10

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BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

Name of work: **Estimate for Improvements to Footpath at 9th Main 2nd Block HMT Layout in Ward No. 09, Vidyaranyapura.**

									Est Cost Rs.	2500000.00
Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount	
1	KSRRB 300 - Excavation for road, drains and similar works KSRRB 300-1. Earthwork **excavation by manual means in ordinary** soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications. MORTH / Chapter 3 **Page No. 142 / Item No. 19.1, PWD SR 2016-17**	Cum		800						
	Desilting of Drains 9th Main 2nd block HMT LO		2	272.00	0.45	0.40	97.92			
	Basic Rate	82.00					**97.92**	199.36	**19522.00**	
	Add loading and unloading Charges **It No 17.1 KSRRB M 100-1**	68.00								
	Average weight of earth 1.28 tonne / kg for 11.90 Km = 1.28 T X 11.90Km X 2.5 / km= 38.08	38.08								
		188.08								
	Area Weightage @6%	11.28								
	Total	**199.36**								
2	Removing and refixing stone slabs of drains and pointing in CM (1:3) **Page No. 25 / Item No. 5.33 PWD SR 2016-17**	Sqm		800						
			2	272.00		1.35	734.40			
	Basic Rate	76.00					**734.40**	80.56	**59163.00**	
	Area Weightage @ 6%	4.56		Cut - refixing 800						
	Total	**80.56**								
3	Providing granite slabs of selected quality roughly dressed havinf a size of 7.5 cms thick and fixed in cement mortar (1:6) including fixing curing ete., complete **Page No. 25 / Item No. 5.31.1 PWD SR 2016-17**	Sqm								
	Damaged Slabs 30%			Vide Item No. 2			183.60			
	Basic Rate	628.00					**183.60**	665.68	**122219.00**	
	Area Weightage @ 6%	37.68								
	Total	**665.68**								
4	KSRB 5-14 : Providing and constructing load bearing wall with solid concrete blocks of size **400x200x200 mm** having block density not lessthan 1800 kg/m3 and having a minimum average compressive strength 4.00 N/mm2 confirming to IS 2185 (Part) : 2005 and constructed with CM 1:4 , as per IS 2572:2005 including cost of all materials, labour charegs, scaffolding, curing complete as per specifications. KBS No.5.4 **Page No. 25 / Item No. 5.26.1, PWD SR 2016-17**	Sqm		800						
			4	272.00		0.40	435.20			
	Basic Rate	937.00					**435.20**	993.22	**432249.00**	
	Area Weightage @ 6%	56.22								
	Total	**993.22**								

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	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
	KSRB 4-1.6 ; Providing and laying in position **plain cement concrete of mix 1:2:4** with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregtes @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, **in foundation, plinth and cills**, ncluding cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. **Page No.12, Item No. 4.6 PWD SR 2016-17**	Cum		300					
	Slab Bottom Concrete Road Side		2	272.00	0.30	0.10	16.32		
	House Side		2	272.00	0.20	0.10	10.88		
	Coping Concrete		4	272.00	0.20	0.10	21.76		
							48.96	5767.46	**282375.00**
	Basic Rate	5441.00							
	Area Weightage @ 6%	326.46							
	Total	**5767.46**							
6	Providing **precast slab of 100 mm thick** including cost of all materials, labour, curing, transportation, loading unloading, etc., complete as per the direction of engineer in charge- Data rate	Sqm	300	090					
	RCC Drain Slab		2	907	0.90	0.60	489.60		
							489.60	1820.56	**891346.00**
7	Providing and fixing pre cast solid cement concrete kerb stones made out of CC 1:2:4 with top and bottom width 114 and 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting including formwork, curing, including cost of materials, labour charges of machinery, loading and unloading, lead and lift, transportation ete.,complete **Page No. 25 / Item No. 5.30 PWD SR 2016-17**	No		300					
	Kerb Stone		2	272.00			1209		
				0.45					
							1209	331.78	**401085.00**
	Basic Rate	313.00							
	Area Weightage @ 6 %	18.78							
	Total	**331.78**							
8	KSRB 15-19.1 : Providing and applying ready mix priming coat over concrete / masonry / asbestos cement sheet / plastered surfaces including preparing the surface after thoroughly cleaning of oil, grease, dirt and other foreign matter, and sand papering including cost of materials, labour, complete as per specifications. **Page No. 122 / Item No. Item No. 15.80, PWD SR 2016-17**	Sqm		300					
	Kerb Stone Painting		2	272.00		0.45	244.80		
							244.80	27.56	**6747.00**
	Basic Rate	26.00							
	Area Weightage @ 6%	1.56							
	Total	**27.56**							

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Description of item	Unit	No	L	B	D	Qty	Rate	Amount
KSRB 15-19.2 : Providing and applying spray painting in two coats (excluding priming coat) over concrete / masonry / asbestos cement sheet / plastered surfaces with flat wall paint of approved brand to give even shade after cleaning the surface of all dirt, dust and other foreign matter, and sand papering including cost of materials, labour, complete as per specifications.**Page No. 122 / Item No. Item No. 15.81, PWD SR 2016-17**	Sqm							
			Qty Vide Item No. 8			244.80		
Basic Rate	66.00					**244.80**	69.96	**17126.00**
Area Weightage @ 6%	3.96							
Total	**69.96**							
Sub Total								**2231832.00**
Tender Premium @ 10%								**223183.00**
Third Party Inspection Charges @ 1%								**22318.00**
Labour Cess Charges @ 1%								**22318.00**
Add for unforseen and rounding off	L/S							**349.00**
							Total	**2500000.00**

Rupees Twenty Five Lakh(s) Only

ertificate:

1 The work spot has been inspected and the work is found necessary.
2 This estimate is prepared as per P.W.D S.R of 2016-17.
3 This work included under 2016-17 P-3120 Special Grant.
4 The provisions were made in this estimate are necessary and adequate.
5 This works come under B.B.M.P. limits.

Assistant Engineer
Ward No. 09

Assistant Executive Engineer
Bruhat Bangalore Mahanagara Palike
Vidyaranyapura Sub Division

Executive Engineer 22/11
Bruhat Bangalore Mahanagara Palike
Byatarayanapura Division

ADMINISTRATIVE APPROVAL
Accorded For Rs. Twenty five lakhs only
Head of A/c. P-3120
Div. Ref. No. 21/17-18 Date. 25/10/17
AE 25/10
EE(BTP) 25/10

Technical Sanction
Accorded For 25.00 lakh
Head of A/C P3120
CER NO : 272 Dt:
TA
CE (YNK)

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BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

Name of work: Estimate for Improvements to Roads and Drains at 5th Cross, 2nd Block HMT Layout in Ward No. 09, Vidyaranyapura.

	009-17-000020	P-3120					Est Cost Rs.		2200000.00
Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
1	KSRRB 300 - Excavation for road, drains and similar works KSRRB 300-1. Earthwork **excavation by manual means in ordinary** soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications. MORTH / Chapter 3 **Page No. 142 / Item No. 19.1, PWD SR 2016-17**	Cum							
	Desilting of Drains 5th Cross 2nd Block HMT		2	148.00	0.45	0.30	39.96		
	For Culverts		2	6.00	1.50	1.20	21.60		
	Basic Rate	82.00					**61.56**	199.36	**12273.00**
	Add loading and unloading Charges **It No 17.1 KSRRB M 100-1**	68.00							
	Average weight of earth 1.28 tonne / kg for 11.90 Km = 1.28 T X 11.90Km X 2.5 / km= 38.08	38.08							
		188.08							
	Area Weightage @6%	11.28							
	Total	**199.36**							
2	KSRB 4-1.3 : Providing and laying in position **plain cement concrete of mix 1:4:8** with OPC cement @ 180kgs, with 40mm and down size graded granite metal coarse aggregates @0.85cum and fine aggregates @ 0.57cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, **in foundation**, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. **Page No.12, Item No. 4.3 of PWD SR 2016-17**	Cum							
	For Culverts		2	6.00	1.50	0.15	2.70		
	Basic Rate	4867.00					**2.70**	5159.02	**13929.00**
	Area Weightage @ 6%	292.02							
	Total	**5159.02**							
3	KSRB 4-6.4 : Providing and removing **centering, shuttering, strutting, propping** etc., and removal of form work for **vertical surface such as walls at any thickness**, including attached pilasters, buttresses, plinth cills and string courses cost of all materials, labour complete as per specifications. Specification No. KBS 4.6.2 **Page No. 15 / Item No. 4.31 PWD SR 2016-17**	Sqm							
	Culvert		2x4	6.00		0.90	48.60		
	Basic Rate	293.00					**48.60**	310.58	**15094.00**
	Area Weightage @ 6%	17.58							
	Total	**310.58**							

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	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
	Removing and refixing stone slabs of drains and pointing in CM (1:3) **Page No. 25 / Item No. 5.33 PWD SR 2016-17**	Sqm	cut 35%						
			2	148.00		1.35	399.60		
	Basic Rate	76.00					**399.60**	80.56	**32192.00**
	Area Weightage @ 6%	4.56							
	Total	**80.56**							
	Providing granite slabs of selected quality roughly dressed havinf a size of 7.5 cms thick and fixed in cement mortar (1:6) including fixing curing ete., complete **Page No. 25 / Item No. 5.31.1 PWD SR 2016-17**	Sqm							
	Deduct 25% Damaged Slabs 35%			Vide Item No. 4			99.90		
	Basic Rate	628.00					**99.90**	665.68	**66501.00**
	Area Weightage @ 6%	37.68							
	Total	**665.68**							
6	KSRB 5-14.2 : Providing and constructing load bearing wall with solid concrete blocks of size 400x150x200 mm having block density not lessthan 1800 kg/m3 and having a minimum average compressive strength 5.00 N/mm2 confirming to IS 2185 (Part) : 2005 and constructed with CM 1:4 , as per IS 2572:2005 including cost of all materials, labour charegs, scaffolding, curing complete as per specifications. KBS No.5.4 **Page No. 25 / Item No. 5.27.2, PWD SR 2016-17**	Sqm							
			4	148.00		0.40	236.80		
	Basic Rate	831.00					**236.80**	880.86	**208588.00**
	Area Weightage @ 6%	49.86							
	Total	**880.86**							
7	KSRB 4-1.6 ; Providing and laying in position **plain cement concrete of mix 1:2:4** with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregtes @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, **in foundation, plinth and cills**, ncluding cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. **Page No.12, Item No. 4.6 PWD SR 2016-17**	Cum							
	Draing Raising Coping		4	148.00	0.20	0.20	23.68		
	Ramp		2x2	6.00	1.00	0.10	2.40		
	Basic Rate	5441.00					**26.08**	5767.46	**150415.00**
	Area Weightage @ 6%	326.46							
	Total	**5767.46**							
8	Providing and laying **cement concrete** using 20 mm and down size granite coarse aggregates and fine aggregates of ready mixed concrete **(RMC) M 20** for R.C.C works laid in 15 cms thick layers and well compacted vibrating, curing, **for raft foundation column footing , main and secondary beams** with all lead and lifts etc., complete (exclusive of cost of steel and fabrication charges.) **Page No. 18, Item No. 4.48, PWD SR 2016-17**	Cum							
	For Culvert Bottom		2	6.00	1.50	0.15	2.70		
	Side Wall		2x2	6.00	0.30	0.90	6.48		

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No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
	Basic Rate	5879.00					9.18	6231.74	57207.00
	Area Weightage @ 6%	352.74							
	Total	**6231.74**							
9	KSRB 4.9.2 : Providing **T.M.T steel reinforcement for R.C.C work** including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3 - **TMT bars Fe 500 Page No. 17 / Item No. 4.46.2, PWD SR 2016-17**	Tonne							
			0.09	9.18	0.090	T/cum	0.83	64243.42	53078.00
	Basic Rate	60607.00							
	Area Weightage @ 6%	3636.42							
	Total	**64243.42**							
10	Providing **precast slab of 250 mm thick** including cost of all materials, labour, curing, transportation, loading unloading, etc., complete as per the direction of engineer in charge- Data rate	Sqm							
	Culvert Deck Slab		20	1.50	0.60		18.00		
							18.00	5125.00	**92250.00**
11	Providing **precast slab of 100 mm thick** including cost of all materials, labour, curing, transportation, loading unloading, etc., complete as per the direction of engineer in charge- Data rate	Sqm							
	RCC Drain Slab		490	0.90	0.60		264.60		
							264.60	1820.56	**481720.00**
12	Providing and fixing pre cast solid cement concrete kerb stones made out of CC 1:2:4 with top and bottom width 114 and 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting including formwork, curing, including cost of materials, labour charges of machinery, loading and unloading, lead and lift, transportation ete.,complete **Page No. 25 / Item No. 5.30 PWD SR 2016-17**	No							
	Kerb Stone		2	148.00			658		
				0.45					
							658	331.78	**218238.00**
	Basic Rate	313.00							
	Area Weightage @ 6%	18.78							
	Total	**331.78**							
13	KSRB 15-19.1 : Providing and applying ready mix priming coat over concrete / masonry / asbestos cement sheet / plastered surfaces including preparing the surface after thoroughly cleaning of oil, grease, dirt and other foreign matter, and sand papering including cost of materials, labour, complete as per specifications. **Page No. 122 / Item No. Item No. 15.80, PWD SR 2016-17**	Sqm							
	Kerb Stone Painting		2	148.00		0.45	133.20		

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Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
	Basic Rate	26.00					**133.20**	27.56	**3671.00**
	Area Weightage @ 6%	1.56							
	Total	**27.56**							
14	KSRB 15-19.2 : Providing and applying spray painting in two coats (excluding priming coat) over concrete / masonry / asbestos cement sheet / plastered surfaces with flat wall paint of approved brand to give even shade after cleaning the surface of all dirt, dust and other foreign matter, and sand papering including cost of materials, labour, complete as per specifications.**Page No. 122 / Item No. Item No. 15.81, PWD SR 2016-17**	Sqm							
			Qty Vide Item No. 13				133.20		
	Basic Rate	66.00					**133.20**	71.28	**9494.00**
	Area Weightage @ 6%	5.28							
	Total	**71.28**							
15	KSRRB 300-47. Scarifying kankar / gravel / metal crust upto 150mm thick with pick axes and disposal of stuff including cost of all labour charges complete as per specifications. MORTH / Chapter 3 **Page No. 147 / Item No. 19.53 PWD SR 2016-17**	Sqm							
	5th Cross 2nd Block HMT Layout		1	148.00	4.50		666.00		
							666.00	26.50	**17649.00**
	Basic Rate	25.00							
	Area Weightage @ 6%	1.50							
	Total	**26.50**							
16	KSRRB M400- Wet Mix Macadam KSRRB M400-17. Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406 **Page No. 158 / Item No. 20.18, PWD SR 2016-17**	Cum							
	5th Cross 2nd Block HMT Layout		1	148.00	5.00	0.23	170.20		
	Basic Rate	1668.00					**170.20**	1768.08	**300927.00**
	Area Weightage @ 6%	100.08							
	Total	**1768.08**							
17	KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications. MORTH Specification No. 502 **Page No. 161 / Item No. 21.6, PWD SR 2016-17**	Sqm							
	5th Cross 2nd Block HMT Layout		1	148.00	5.00		740.00		
	Basic Rate	26.00					**740.00**	27.56	**20394.00**
	Area Weightage @ 6%	1.56							
	Total	**27.56**							

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Description of item	Unit	No	L	B	D	Qty	Rate	Amount
KSRRB M500-19. Providing and laying **bituminous concrete 40 mm thick** with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 500.9 complete in all respects complete as per specifications. MORTH Specification No. 509 - using 40/60 TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 45 mm) with 6 % VG-30 Bitumen **Page No. 165 / Item No. 21.22.6, PWD SR 2016-17**	cum							
5th Cross 2nd Block HMT Layout		1	148.00	5.00	0.040	29.60		
Basic Rate	6683.00					**29.60**	7083.98	**209686.00**
Area Weightage @ 6%	400.98							
Total	**7083.98**							
Sub Total								**1963306.00**
Tender Premium @ 10%								**196331.00**
Third Party Inspection Charges @ 1%								**19633.00**
Labour Cess Charges @ 1%								**19633.00**
Add for unforseen and rounding off	L/S							**1097.00**
							Total	**2200000.00**

Rupees Twenty Two Lakh(s) Only

Certificate:

1 The work spot has been inspected and the work is found necessary.
2 This estimate is prepared as per P.W.D S.R of 2016-17.
3 This work included under 2016-17 P-3120 Special Grant.
4 The provisions were made in this estimate are necessary and adequate.
5 This works come under B.B.M.P. limits.

Assistant Engineer
Ward No. 09

Assistant Executive Engineer
Bruhat Bangalore Mahanagara Palike
Vidyaranyapura Sub Division

Executive Engineer
Bruhat Bangalore Mahanagara Palike
Byatarayanapura Division
25/10

ADMINISTRATIVE APPROVAL

Accorded For Rs. Twenty two lakhs only

Head of A/c P-3120

Div. Ref. No. 22/17-18 Date 25/10/17

AE 25/10

EE(BTP) 25/10

Technical Sanction
Accorded For 22.00 lakh Rs.
Head of A/C P3120
CER NO : 256 Dt:.. 7/11/17

TA CE (YNK)

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BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

Name of work: Estimate for Improvements to Roads and Drains at 6th Cross between 2nd and 3rd Block HMT Layout in Ward No. 09, Vidyaranyapura.

							Est Cost Rs.	3500000.00
Description of item	**Unit**	**No**	**L**	**B**	**D**	**Qty**	**Rate**	**Amount**
KSRRB 300 - Excavation for road, drains and similar works KSRRB 300-1. Earthwork **excavation by manual means in ordinary** soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications. MORTH / Chapter 3 **Page No. 142 / Item No. 19.1, PWD SR 2016-17**	Cum							
Desilting of Drains 6th Cross		2	215.00	0.45	0.35	67.73		
Basic Rate	82.00					**67.73**	199.36	**13502.00**
Add loading and unloading Charges **It No 17.1 KSRRB M 100-1**	68.00							
Average weight of earth 1.28 tonne / kg for 11.90 Km = 1.28 T X 11.90Km X 2.5 / km= 38.08	38.08							
	188.08							
Area Weightage @6%	11.28							
Total	**199.36**							
Removing and refixing stone slabs of drains and pointing in CM (1:3) **Page No. 25 / Item No. 5.33 PWD SR 2016-17**	Sqm							
		2	215.00		1.35	580.50		
Basic Rate	76.00					**580.50**	80.56	**46765.00**
Area Weightage @ 6%	4.56							
Total	**80.56**							
Providing granite slabs of selected quality roughly dressed havinf a size of 7.5 cms thick and fixed in cement mortar (1:6) including fixing curing ete., complete **Page No. 25 / Item No. 5.31.1 PWD SR 2016-17**	Sqm							
Damaged Slabs			Vide Item No. 2			145.13		
Basic Rate	628.00					**145.13**	665.68	**96607.00**
Area Weightage @ 6%	37.68							
Total	**665.68**							
KSRB 5-14.2 : Providing and constructing load bearing wall with solid concrete blocks of size 400x150x200 mm having block density not lessthan 1800 kg/m3 and having a minimum average compressive strength 5.00 N/mm2 confirming to IS 2185 (Part) : 2005 and constructed with CM 1:4 , as per IS 2572:2005 including cost of all materials, labour charegs, scaffolding, curing complete as per specifications. KBS No.5.4 **Page No. 25 / Item No. 5.27.2, PWD SR 2016-17**	Sqm		300					
		4	215.00		0.40	344.00		
Basic Rate	831.00					**344.00**	880.86	**303016.0**
Area Weightage @ 6%	49.86							
Total	**880.86**							

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Description of item	Unit	No	L	B	D	Qty	Rate	Amount
KSRB 4-1.6 ; Providing and laying in position **plain cement concrete of mix 1:2:4** with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregtes @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, **in foundation, plinth and cills**, ncluding cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. **Page No.12, Item No. 4.6 PWD SR 2016-17**	Cum							
Bottom Road Side		2	215.00	0.30	0.10	12.90		
House Side		2	215.00	0.20	0.10	8.60		
Coping		4	215.00	0.15	0.10	12.90		
						34.40	5767.46	**198401.00**
Basic Rate	5441.00							
Area Weightage @ 6%	326.46							
Total	**5767.46**							
Providing **precast slab of 100 mm thick** including cost of all materials, labour, curing, transportation, loading unloading, etc., complete as per the direction of engineer in charge- Data rate	Sqm							
RCC Drain Slab		717	0.90	0.60		387.00		
						387.00	1820.56	**704557.00**
Providing and fixing pre cast solid cement concrete kerb stones made out of CC 1:2:4 with top and bottom width 114 and 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting including formwork, curing, including cost of materials, labour charges of machinery, loading and unloading, lead and lift, transportation ete.,complete **Page No. 25 / Item No. 5.30 PWD SR 2016-17**	No							
Kerb Stone		2	215.00			956		
			0.45					
						956	331.78	**317034.00**
Basic Rate	313.00							
Area Weightage @ 6%	18.78							
Total	**331.78**							
KSRB 15-19.1 : Providing and applying ready mix priming coat over concrete / masonry / asbestos cement sheet / plastered surfaces including preparing the surface after thoroughly cleaning of oil, grease, dirt and other foreign matter, and sand papering including cost of materials, labour, complete as per specifications. **Page No. 122 / Item No. Item No. 15.80, PWD SR 2016-17**	Sqm							
Kerb Stone Painting		2	215.00		0.45	193.50		
						193.50	27.56	**5333.00**
Basic Rate	26.00							
Area Weightage @ 6%	1.56							
Total	**27.56**							

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Description of item	Unit	No	L	B	D	Qty	Rate	Amount
KSRB 15-19.2 : Providing and applying spray painting in two coats (excluding priming coat) over concrete / masonry / asbestos cement sheet / plastered surfaces with flat wall paint of approved brand to give even shade after cleaning the surface of all dirt, dust and other foreign matter, and sand papering including cost of materials, labour, complete as per specifications.**Page No. 122 / Item No. Item No. 15.81, PWD SR 2016-17**	Sqm							
		Qty Vide Item No. 8				193.50		
Basic Rate	66.00					**193.50**	69.96	**13537.00**
Area Weightage @ 6%	3.96							
Total	**69.96**							
KSRRB 300-47. Scarifying kankar / gravel / metal crust upto 150mm thick with pick axes and disposal of stuff including cost of all labour charges complete as per specifications. MORTH / Chapter 3 **Page No. 147 / Item No. 19.53 PWD SR 2016-17**	Sqm							
6th Cross		1	215.00	6.50		1397.50		
						1397.50	26.50	**37034.00**
Basic Rate	25.00							
Area Weightage @ 6%	1.50							
Total	**26.50**							
KSRRB M400- Wet Mix Macadam KSRRB M400-17. Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406 **Page No. 158 / Item No. 20.18, PWD SR 2016-17**	Cum							
6th Cross		1	215.00	9.00	0.23	445.05		
Basic Rate	1668.00					**445.05**	1768.08	**786884.00**
Area Weightage @ 6%	100.08							
Total	**1768.08**							
KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications. MORTH Specification No. 502 **Page No. 161 / Item No. 21.6, PWD SR 2016-17**	Sqm							
6th Cross		1	215.00	9.00		1935.00		
Basic Rate	26.00					**1935.00**	27.56	**53329.00**
Area Weightage @ 6%	1.56							
Total	**27.56**							

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Description of item	Unit	No	L	B	D	Qty	Rate	Amount
KSRRB M500-19. Providing and laying **bituminous concrete 40 mm thick** with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 500.9 complete in all respects complete as per specifications. MORTH Specification No. 509 - using 40/60 TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 45 mm) with 6 % VG-30 Bitumen **Page No. 165 / Item No. 21.22.6, PWD SR 2016-17**	cum							
6th Cross		1	215.00	9.00	0.040	77.40		
						77.40	7083.98	**548300.00**
Basic Rate	6683.00							
Area Weightage @ 6%	400.98							
Total	**7083.98**							
Sub Total								**3124299.00**
Tender Premium @ 10%								**312430.00**
Third Party Inspection Charges @ 1%								**31243.00**
Labour Cess Charges @ 1%								**31243.00**
Add for unforseen and rounding off	L/S							**785.00**
							Total	**3500000.00**

Rupees Thirty Five Lakh(s) Only

tification:

The work spot has been inspected and the work is found necessary.
This estimate is prepared as per P.W.D S.R of 2016-17.
This work included under 2016-17 P-3120 Special Grant.
The provisions were made in this estimate are necessary and adequate.
This works come under B.B.M.P. limits.

Assistant Engineer
Ward No. 09

Assistant Executive Engineer
Bruhat Bangalore Mahanagara Palike
Vidyaranyapura Sub Division

Executive Engineer
Bruhat Bangalore Mahanagara Palike
Byatarayanapura Division

ADMINISTRATIVE APPROVAL
Accorded For Rs. Thirty five lakhs only
Head of A/c. P-3120
Div. Ref. No. 23/17-18 Date. 25/10/17
AE

Technical Sanction
Accorded For 35-00 lakhs
Head of A/C P3120
CER NO : 257 Dt: 07/11/17
TA CE (YNK)

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BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

Name of work: **Estimate for Improvements to Ganesha Temple Road, Munisamappa Layout in Ward No. 09, Vidyaranyapura.**

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
							Est Cost Rs.		**3500000.00**
1	KSRRB 300 - Excavation for road, drains and similar works KSRRB 300-1. Earthwork **excavation by manual means in ordinary** soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications. MORTH / Chapter 3 **Page No. 142 / Item No. 19.1, PWD SR 2016-17**	Cum							
	For New Drain Ganesha Temple Road		1	224.00	1.00	1.00	224.00		
	For Culverts		2	6.50	1.50	1.20	23.40		
	Basic Rate	82.00					**247.40**	199.36	**49323.00**
	Add loading and unloading Charges **It No 17.1 KSRRB M 100-1**	68.00							
	Average weight of earth 1.28 tonne / kg for 11.90 Km = 1.28 T X 11.90Km X 2.5 / km= 38.08	38.08							
		188.08							
	Area Weightage @6%	11.28							
	Total	**199.36**							
2	KSRB 4-1.3 : Providing and laying in position **plain cement concrete of mix 1:4:8** with OPC cement @ 180kgs, with 40mm and down size graded granite metal coarse aggregates @0.85cum and fine aggregates @ 0.57cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, **in foundation**, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. **Page No.12, Item No. 4.3 of PWD SR 2016-17**	Cum							
	For New Drain Ganesha Temple Road		1	224.00	0.90	0.15	30.24		
	For Culverts		2	6.50	1.20	0.15	2.34		
	Basic Rate	4867.00					**32.58**	5159.02	**168081.00**
	Area Weightage @ 6%	292.02							
	Total	**5159.02**							
3	KSRB 4-6.4 : Providing and removing **centering, shuttering, strutting, propping** etc., and removal of form work for **vertical surface such as walls at any thickness**, including attached pilasters, buttresses, plinth cills and string courses cost of all materials, labour complete as per specifications. Specification No. KBS 4.6.2 **Page No. 15 / Item No. 4.31 PWD SR 2016-17**	Sqm							

~~1 Rubble cut stone~~ 1 R.C.C. drain size. Size 2.5 mtr. width

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	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
	CC Drain								
	Culvert		1x4	224.00		0.90	806.40		
			2x4	6.50		0.90	46.80		
	Basic Rate	293.00					853.20	310.58	264987.00
	Area Weightage @ 6%	17.58							
	Total	**310.58**							
8	Providing and laying **cement concrete** using 20 mm and down size granite coarse aggregates and fine aggregates of ready mixed concrete **(RMC) M 20** for R.C.C works laid in 15 cms thick layers and well compacted vibrating, curing, **for raft foundation column footing , main and secondary beams** with all lead and lifts etc., complete (exclusive of cost of steel and fabrication charges.) **Page No. 18, Item No. 4.48, PWD SR 2016-17**	Cum							
	For CC Drain Bottom		1	224.00	0.90	0.15	30.24		
	Side Wall		2	224.00	0.15	0.75	50.40		
	For Culvert Bottom		2	6.50	1.50	0.15	2.93		
	Side Wall		2x2	6.50	0.30	0.90	7.02		
	Basic Rate	5879.00					**90.59**	6231.74	**564502.00**
	Area Weightage @ 6%	352.74							
	Total	**6231.74**							
9	KSRB 4.9.2 : Providing **T.M.T steel reinforcement for R.C.C work** including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3 **- TMT bars Fe 500 Page No. 17 / Item No. 4.46.2, PWD SR 2016-17**	Tonne							
				90.59	0.060	T/cum	**5.44**	64243.42	**349169.00**
	Basic Rate	60607.00							
	Area Weightage @ 6%	3636.42							
	Total	**64243.42**							
10	Providing **precast slab of 250 mm thick** including cost of all materials, labour, curing, transportation, loading unloading, etc., complete as per the direction of engineer in charge- Data rate	Sqm							
	Culvert Deck Slab		22	1.50	0.60		19.80		
							19.80	5125.00	**101475.00**
11	Providing **precast slab of 100 mm thick** including cost of all materials, labour, curing, transportation, loading unloading, etc., complete as per the direction of engineer in charge- Data rate	Sqm							

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	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
	RCC Drain Slab		372	0.90	0.60		200.88		
							200.88	1820.56	**365714.00**
12	Providing and fixing pre cast solid cement concrete kerb stones made out of CC 1:2:4 with top and bottom width 114 and 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting including formwork, curing, including cost of materials, labour charges of machinery, loading and unloading, lead and lift, transportation ete.,complete **Page No. 25 / Item No. 5.30 PWD SR 2016-17**	No							
	Kerb Stone		2	224.00			996	**331.78**	**330305.00**
	Basic Rate	313.00		0.45					
	Area Weightage @ 6%	18.78							
	Total	**331.78**							
13	KSRB 15-19.1 : Providing and applying ready mix priming coat over concrete / masonry / asbestos cement sheet / plastered surfaces including preparing the surface after thoroughly cleaning of oil, grease, dirt and other foreign matter, and sand papering including cost of materials, labour, complete as per specifications. **Page No. 122 / Item No. Item No. 15.80, PWD SR 2016-17**	Sqm							
	Kerb Stone Painting		2	224.00		0.45	201.60		
	Basic Rate	26.00					**201.60**	27.56	**5556.00**
	Area Weightage @ 6%	1.56							
	Total	**27.56**							
14	KSRB 15-19.2 : Providing and applying spray painting in two coats (excluding priming coat) over concrete / masonry / asbestos cement sheet / plastered surfaces with flat wall paint of approved brand to give even shade after cleaning the surface of all dirt, dust and other foreign matter, and sand papering including cost of materials, labour, complete as per specifications.**Page No. 122 / Item No. Item No. 15.81, PWD SR 2016-17**	Sqm							
			Qty Vide Item No. 13				201.60		
	Basic Rate	66.00					**201.60**	69.96	**14104.00**
	Area Weightage @ 6%	3.96							
	Total	**69.96**							
15	KSRRB 300-47. Scarifying kankar / gravel / metal crust upto 150mm thick with pick axes and disposal of stuff including cost of all labour charges complete as per specifications. MORTH / Chapter 3 **Page No. 147 / Item No. 19.53 PWD SR 2016-**	Sqm							
	Ganesh Temple Road		1	224.00	4.50		1008.00		
							1008.00	26.50	**26712.00**
	Basic Rate	25.00							

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	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
	Area Weightage @ 6%	1.50							
	Total	**26.50**							
	SRRB M400- Wet Mix Macadam KSRRB M400-7. Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406 **Page No. 158 / Item No. 20.18, PWD SR 2016-17**	Cum							
	Ganesh Temple Road		1	224.00	5.50	0.23	283.36		
	Basic Rate	1668.00					**283.36**	1768.08	**501003.00**
	Area Weightage @ 6%	100.08							
	Total	**1768.08**							
17	KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications. MORTH Specification No. 502 **Page No. 161 / Item No. 21.6, PWD SR 2016-17**	Sqm							
	Ganesh Temple Road		1	224.00	5.50		1232.00		
	Basic Rate	26.00					**1232.00**	27.56	**33954.00**
	Area Weightage @ 6%	1.56							
	Total	**27.56**							
18	KSRRB M500-19. Providing and laying **bituminous concrete 40 mm thick** with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 500.9 complete in all respects complete as per specifications. MORTH Specification No. 509 - using 40/60 TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 45 mm) with 6 % VG-30 Bitumen **Page No. 165 / Item No. 21.22.6, PWD SR 2016-17**	cum							
	Ganesh Temple Road		1	224.00	5.50	0.040	49.28		
	Basic Rate	6683.00					**49.28**	7083.98	**349099.00**
	Area Weightage @ 6%	400.98							
	Total	**7083.98**							
	Sub Total								**3123984.00**

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Description of item	Unit	No	L	B	D	Qty	Rate	Amount
Tender Premium @ 10%								312398.00
Third Party Inspection Charges @ 1%								31240.00
Labour Cess Charges @ 1%								31240.00
Add for unforseen and rounding off	L/S							1138.00
							Total	3500000.00

Rupees Thirty Five Lakh(s) Only

Certificate:

1 The work spot has been inspected and the work is found necessary.
2 This estimate is prepared as per P.W.D S.R of 2016-17.
3 This work included under 2016-17 P-3120 Special Grant.
4 The provisions were made in this estimate are necessary and adequate.
5 This works come under B.B.M.P. limits.

Assistant Engineer
Ward No. 09

Assistant Executive Engineer
Bruhat Bangalore Mahanagara Palike
Vidyaranyapura Sub Division

25/10

Executive Engineer
Bruhat Bangalore Mahanagara Palike
Byatarayanapura Division

25/10

ADMINISTRATIVE APPROVAL

Accorded For Rs. Thirty five lakhs only

Head of A/c. P-3120

Div. Ref. No. 24/17-18 Date. 25/10/17

25/10
AE

25/10
EE(BTP)

Technical Sanction
Accorded For 35.00 lakh Rs
Head of A/C P-3120
CER NO : 258 Dt:. 07/11/17

TA

CE (YNK)

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BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

Name of work: **Estimate for Improvements to Roads and Drains from Hopcoms to Somanna Garden Road of HMT Layout in Ward No. 09, Vidyaranyapura.**

	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
							Est Cost Rs.		4000000.00
	KSRRB 300 - Excavation for road, drains and similar works KSRRB 300-1. Earthwork **excavation by manual means in ordinary** soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications. MORTH / Chapter 3 **Page No. 142 / Item No. 19.1, PWD SR 2016-17**	Cum							
	Desilting of Drains Somanna Garden 2nd Main		2	300.00	0.45	0.40	108.00		
	Basic Rate	82.00					**108.00**	199.36	**21531.00**
	Add loading and unloading Charges **It No 17.1 KSRRB M 100-1**	68.00							
	Average weight of earth 1.28 tonne / kg for 11.90 Km = 1.28 T X 11.90Km X 2.5 / km= 38.08	38.08							
		188.08							
	Area Weightage @6%	11.28							
	Total	**199.36**							
2	Removing and refixing stone slabs of drains and pointing in CM (1:3) **Page No. 25 / Item No. 5.33 PWD SR 2016-17**	Sqm							
			2	300.00		1.35	810.00		
	Basic Rate	76.00					**810.00**	80.56	**65254.00**
	Area Weightage @ 6%	4.56							
	Total	**80.56**							
3	Providing granite slabs of selected quality roughly dressed havinf a size of 7.5 cms thick and fixed in cement mortar (1:6) including fixing curing ete., complete **Page No. 25 / Item No. 5.31.1 PWD SR 2016-17**	Sqm							
				Vide Item No. 2			202.50		
	Basic Rate	628.00					**202.50**	665.68	**134800.00**
	Area Weightage @ 6%	37.68							
	Total	**665.68**							
4	KSRB 5-14.2 : Providing and constructing load bearing wall with solid concrete blocks of size 400x150x200 mm having block density not lessthan 1800 kg/m3 and having a minimum average compressive strength 5.00 N/mm2 confirming to IS 2185 (Part) : 2005 and constructed with CM 1:4 , as per IS 2572:2005 including cost of all materials, labour charegs, scaffolding, curing complete as per specifications. KBS No.5.4 **Page No. 25 / Item No. 5.27.2, PWD SR 2016-17**	Sqm							
			4	300.00		0.40	480.00		
	Basic Rate	831.00					**480.00**	880.86	**422813.00**
	Area Weightage @ 6%	49.86							
	Total	**880.86**							

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	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
	KSRB 4-1.6 ; Providing and laying in position **plain cement concrete of mix 1:2:4** with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregtes @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, **in foundation, plinth and cills**, ncluding cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. **Page No.12, Item No. 4.6 PWD SR 2016-17**	Cum							
			4	300.00	0.20	0.20	48.00		
							48.00	5767.46	**276838.00**
	Basic Rate	5441.00							
	Area Weightage @ 6%	326.46							
	Total	**5767.46**							
6	Providing **precast slab of 100 mm thick** including cost of all materials, labour, curing, transportation, loading unloading, etc., complete as per the direction of engineer in charge- Data rate	Sqm							
	RCC Drain Slab		1000	0.90	0.60		540.00		
							540.00	1820.56	**983102.00**
7	Providing and fixing pre cast solid cement concrete kerb stones made out of CC 1:2:4 with top and bottom width 114 and 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting including formwork, curing, including cost of materials, labour charges of machinery, loading and unloading, lead and lift, transportation ete.,complete **Page No. 25 / Item No. 5.30 PWD SR 2016-17**	No							
	Kerb Stone		2	300.00			1333		
				0.45					
							1333	331.78	**442373.00**
	Basic Rate	313.00							
	Area Weightage @ 6%	18.78							
	Total	**331.78**							
8	KSRB 15-19.1 : Providing and applying ready mix priming coat over concrete / masonry / asbestos cement sheet / plastered surfaces including preparing the surface after thoroughly cleaning of oil, grease, dirt and other foreign matter, and sand papering including cost of materials, labour, complete as per specifications. **Page No. 122 / Item No. Item No. 15.80, PWD SR 2016-17**	Sqm							
	Kerb Stone Painting		2	300.00		0.45	270.00		
							270.00	27.56	**7441.00**
	Basic Rate	26.00							
	Area Weightage @ 6%	1.56							
	Total	**27.56**							

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	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
	KSRB 15-19.2 : Providing and applying spray painting in two coats (excluding priming coat) over concrete / masonry / asbestos cement sheet / plastered surfaces with flat wall paint of approved brand to give even shade after cleaning the surface of all dirt, dust and other foreign matter, and sand papering including cost of materials, labour, complete as per specifications.**Page No. 122 / Item No. Item No. 15.81, PWD SR 2016-17**	Sqm							
			Qty Vide Item No. 8				270.00		
	Basic Rate	66.00					**270.00**	69.96	**18889.00**
	Area Weightage @ 6%	3.96							
	Total	**69.96**							
10	KSRRB 300-47. Scarifying kankar / gravel / metal crust upto 150mm thick with pick axes and disposal of stuff including cost of all labour charges complete as per specifications. MORTH / Chapter 3 **Page No. 147 / Item No. 19.53 PWD SR 2016-17**	Sqm							
	Somanna Garden 2nd Main		2	300.00	1.55		930.00		
							930.00	26.50	**24645.00**
	Basic Rate	25.00							
	Area Weightage @ 6%	1.50							
	Total	**26.50**							
11	KSRRB M400- Wet Mix Macadam KSRRB M400-17. Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406 **Page No. 158 / Item No. 20.18, PWD SR 2016-17**	Cum							
	Somanna Garden 2nd Main		2	300.00	1.75	0.23	241.50		
	Basic Rate	1668.00					**241.50**	1768.08	**426991.00**
	Area Weightage @ 6%	100.08							
	Total	**1768.08**							
12	KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications. MORTH Specification No. 502 **Page No. 161 / Item No. 21.6, PWD SR 2016-17**	Sqm							
	Somanna Garden 2nd Main		1	300.00	8.00		2400.00		
	Basic Rate	26.00					**2400.00**	27.56	**66144.00**
	Area Weightage @ 6%	1.56							
	Total	**27.56**							

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Description of item	Unit	No	L	B	D	Qty	Rate	Amount
KSRRB M500-19. Providing and laying **bituminous concrete 40 mm thick** with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 500.9 complete in all respects complete as per specifications. MORTH Specification No. 509 - using 40/60 TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 45 mm) with 6 % VG-30 Bitumen **Page No. 165 / Item No. 21.22.6, PWD SR 2016-17**	cum							
Somanna Garden 2nd Main		1	300.00	8.00	0.040	96.00		
						96.00	7083.98	**680062.00**
Basic Rate	6683.00							
Area Weightage @ 6%	400.98							
Total	**7083.98**							
								3570883.00
Sub Total								**357088.00**
Tender Premium @ 10%								**35709.00**
Third Party Inspection Charges @ 1%								**35709.00**
Labour Cess Charges @ 1%								**611.00**
Add for unforseen and rounding off	L/S						Total	**4000000.00**

(Rupees Forty lakhs only)

Certificate:

1 The work spot has been inspected and the work is found necessary.
2 This estimate is prepared as per P.W.D S.R of 2016-17.
3 This work included under 2016-17 P-3120 Special Grant.
4 The provisions were made in this estimate are necessary and adequate.
5 This works come under B.B.M.P. limits.

Assistant Engineer
Ward No. 09

Assistant Executive Engineer
Bruhat Bangalore Mahanagara Palike
Vidyaranyapura Sub Division

Executive Engineer
Bruhat Bangalore Mahanagara Palike
Byatarayanapura Division

ADMINISTRATIVE APPROVAL
Accorded For Rs. Forty lakhs only
Head of A/c. P-3120
Div. Ref. No. 25/17-18 Date 25/10/17
AE 25/10
EE(BTP)

Technical Sanction
Accorded For 40.00 lakh Rs
Head of A/C P3120
CER NO : 273 Dt: 10/11/17
TA
CE (YNK)

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BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

Name of work: **Estimate for Improvements to Roads and Drains at Sapthagiri Layout Cross Roads and Somanna Garden 3rd Cross in Ward No. 09, Vidyaranyapura.**

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
							Est Cost Rs.		2800000.00
1	KSRRB 300 - Excavation for road, drains and similar works KSRRB 300-1. Earthwork **excavation by manual means in ordinary** soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications. MORTH / Chapter 3 **Page No. 142 / Item No. 19.1, PWD SR 2016-17**	Cum							
	Desilting of Drains		2	148.00	0.45	0.30	39.96		
	For New Drain 1st to 3rd Cross Sapthagiri LO		3	60.00	0.80	0.75	108.00		
	For Culverts		2	6.00	1.50	1.20	21.60		
	Basic Rate	82.00					**169.56**	199.36	**33804.00**
	Add loading and unloading Charges **It No 17.1 KSRRB M 100-1**	68.00							
	Average weight of earth 1.28 tonne / kg for 11.90 Km = 1.28 T X 11.90Km X 2.5 / km= 38.08	38.08							
		188.08							
	Area Weightage @6%	11.28							
	Total	**199.36**							
2	KSRB 4-1.3 : Providing and laying in position **plain cement concrete of mix 1:4:8** with OPC cement @ 180kgs, with 40mm and down size graded granite metal coarse aggregates @0.85cum and fine aggregates @ 0.57cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, **in foundation**, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. **Page No.12, Item No. 4.3 of PWD SR 2016-17**	Cum							
	For New Drain 1st to 3rd Cross Sapthagiri LO		3	60.00	0.75	0.15	20.25		
	For Culverts		2	6.00	1.50	0.15	2.70		
	Basic Rate	4867.00					**22.95**	5159.02	**118400.00**
	Area Weightage @ 6%	292.02							
	Total	**5159.02**							

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	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
	KSRB 4-6.4 : Providing and removing **centering, shuttering, strutting, propping** etc., and removal of form work for **vertical surface such as walls at any thickness**, including attached pilasters, buttresses, plinth cills and string courses cost of all materials, labour complete as per specifications. Specification No. KBS 4.6.2 **Page No. 15 / Item No. 4.31 PWD SR 2016-17**	Sqm							
	CC Drain		4x3	60.00		0.45	324.00		
	Culvert		2x4	6.00		0.90	48.60		
	Basic Rate	293.00					**372.60**	310.58	**115722.00**
	Area Weightage @ 6%	17.58							
	Total	**310.58**							
4	Removing and refixing stone slabs of drains and pointing in CM (1:3) **Page No. 25 / Item No. 5.33 PWD SR 2016-17**	Sqm							
			2	148.00		1.35	399.60		
	Basic Rate	76.00					**399.60**	80.56	**32192.00**
	Area Weightage @ 6%	4.56							
	Total	**80.56**							
5	Providing granite slabs of selected quality roughly dressed havinf a size of 7.5 cms thick and fixed in cement mortar (1:6) including fixing curing ete., complete **Page No. 25 / Item No. 5.31.1 PWD SR 2016-17**	Sqm							
	Deduct 25% Damaged Slabs			Vide Item No. 4			99.90		
	Basic Rate	628.00					**99.90**	665.68	**66501.00**
	Area Weightage @ 6%	37.68							
	Total	**665.68**							
6	KSRB 5-14.2 : Providing and constructing load bearing wall with solid concrete blocks of size 400x150x200 mm having block density not lessthan 1800 kg/m3 and having a minimum average compressive strength 5.00 N/mm2 confirming to IS 2185 (Part) : 2005 and constructed with CM 1:4 , as per IS 2572:2005 including cost of all materials, labour charegs, scaffolding, curing complete as per specifications. KBS No.5.4 **Page No. 25 / Item No. 5.27.2, PWD SR 2016-17**	Sqm							
			4	148.00		0.40	236.80		
	Basic Rate	831.00					**236.80**	880.86	**208588.00**
	Area Weightage @ 6%	49.86							
	Total	**880.86**							

Rate of bed sand boulder CC 1:4:8

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							Qty	Rate	Amount
	plain cement concrete of mix 1:2:4 with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregtes @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, **in foundation, plinth and cills**, ncluding cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. **Page No.12, Item No. 4.6 PWD SR 2016-17**	Cum							
			4	148.00	0.20	0.20	23.68		
	Basic Rate	5441.00					**23.68**	5767.46	**136573.00**
	Area Weightage @ 6%	326.46							
	Total	**5767.46**							
8	Providing and laying **cement concrete** using 20 mm and down size granite coarse aggregates and fine aggregates of ready mixed concrete **(RMC) M 20** for R.C.C works laid in 15 cms thick layers and well compacted vibrating, curing, **for raft foundation column footing , main and secondary beams** with all lead and lifts etc., complete (exclusive of cost of steel and fabrication charges.) **Page No. 18, Item No. 4.48, PWD SR 2016-17**	Cum							
	For CC Drain Bottom		3	60.00	0.75	0.15	20.25		
	Side Wall		2x3	60.00	0.15	0.45	24.30		
	For Culvert Bottom		2	6.00	1.50	0.15	2.70		
	Side Wall		2x2	6.00	0.30	0.90	6.48		
	Basic Rate	5879.00					**53.73**	6231.74	**334831.00**
	Area Weightage @ 6%	352.74							
	Total	**6231.74**							
9	KSRB 4.9.2 : Providing **T.M.T steel reinforcement for R.C.C work** including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3 - **TMT bars Fe 500 Page No. 17 / Item No. 4.46.2, PWD SR 2016-17**	Tonne							
				53.73	0.060 T/cum		**3.22**	64243.42	**207108.00**
	Basic Rate	60607.00							
	Area Weightage @ 6%	3636.42							
	Total	**64243.42**							
10	Providing **precast slab of 250 mm thick** including cost of all materials, labour, curing, transportation, loading unloading, etc., complete as per the direction of engineer in charge- Data rate	Sqm							
	Culvert Deck Slab		20	1.50	0.60		18.00		

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	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
							18.00	5125.00	**92250.0**
1	Providing **precast slab of 100 mm thick** including cost of all materials, labour, curing, transportation, loading unloading, etc., complete as per the direction of engineer in charge- Data rate	Sqm							
	RCC Drain Slab		490	0.90	0.60		264.60		
							264.60	1820.56	**481720.00**
12	Providing and fixing pre cast solid cement concrete kerb stones made out of CC 1:2:4 with top and bottom width 114 and 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting including formwork, curing, including cost of materials, labour charges of machinery, loading and unloading, lead and lift, transportation ete.,complete **Page No. 25 / Item No. 5.30 PWD SR 2016-17**	No							
	Kerb Stone		2	148.00			658		
				0.45					
							658	331.78	**218238.00**
	Basic Rate	313.00							
	Area Weightage @ 6%	18.78							
	Total	**331.78**							
13	KSRB 15-19.1 : Providing and applying ready mix priming coat over concrete / masonry / asbestos cement sheet / plastered surfaces including preparing the surface after thoroughly cleaning of oil, grease, dirt and other foreign matter, and sand papering including cost of materials, labour, complete as per specifications. **Page No. 122 / Item No. Item No. 15.80, PWD SR 2016-17**	Sqm							
	Kerb Stone Painting		2	148.00		0.45	133.20		
							133.20	27.56	**3671.00**
	Basic Rate	26.00							
	Area Weightage @ 6%	1.56							
	Total	**27.56**							
14	KSRB 15-19.2 : Providing and applying spray painting in two coats (excluding priming coat) over concrete / masonry / asbestos cement sheet / plastered surfaces with flat wall paint of approved brand to give even shade after cleaning the surface of all dirt, dust and other foreign matter, and sand papering including cost of materials, labour, complete as per specifications.**Page No. 122 / Item No. Item No. 15.81, PWD SR 2016-17**	Sqm							
			Qty Vide Item No. 13				133.20		
	Basic Rate	66.00					**133.20**	69.96	**9319.00**
	Area Weightage @ 6%	3.96							
	Total	**69.96**							

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	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
	KSRRB 300-47. Scarifying kankar / gravel / metal crust upto 150mm thick with pick axes and disposal of stuff including cost of all labour charges complete as per specifications. MORTH / Chapter 3 **Page No. 147 / Item No. 19.53 PWD SR 2016-17**	Sqm							
	Somanna Garden 3rd Cross		1	148.00	4.00		592.00		
							592.00	26.50	**15688.00**
	Basic Rate	25.00							
	Area Weightage @ 6%	1.50							
	Total	**26.50**							
16	KSRRB M400- Wet Mix Macadam KSRRB M400-17. Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406 **Page No. 158 / Item No. 20.18, PWD SR 2016-17**	Cum							
	Somanna Garden 3rd Cross		1	148.00	4.00	0.23	136.16		
							136.16	1768.08	**240742.00**
	Basic Rate	1668.00							
	Area Weightage @ 6%	100.08							
	Total	**1768.08**							
17	KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications. MORTH Specification No. 502 **Page No. 161 / Item No. 21.6, PWD SR 2016-17**	Sqm							
	Somanna Garden 3rd Cross		1	148.00	4.00		592.00		
							592.00	27.56	**16316.00**
	Basic Rate	26.00							
	Area Weightage @ 6%	1.56							
	Total	**27.56**							

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Description of item	Unit	No	L	B	D	Qty	Rate	Amount
KSRRB M500-19. Providing and laying **bituminous concrete 40 mm thick** with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 500.9 complete in all respects complete as per specifications. MORTH Specification No. 509 - using 40/60 TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 45 mm) with 6 % VG-30 Bitumen **Page No. 165 / Item No. 21.22.6, PWD SR 2016-17**	cum							
Somanna Garden 3rd Cross		1	148.00	4.00	0.040	23.68		
Basic Rate	6683.00					**23.68**	7083.98	**167749.00**
Area Weightage @ 6%	400.98							
Total	**7083.98**							
Sub Total								**2499412.00**
Tender Premium @ 10%								**249941.00**
Third Party Inspection Charges @ 1%								**24994.00**
Labour Cess Charges @ 1%								**24994.00**
Add for unforseen and rounding off	L/S							**659.00**
							Total	**2800000.00**
Rupees Twenty Eight Lakh(s) Only								

Certificate:

1 The work spot has been inspected and the work is found necessary.
2 This estimate is prepared as per P.W.D S.R of 2016-17.
3 This work included under 2016-17 P-3120 Special Grant.
4 The provisions were made in this estimate are necessary and adequate.
5 This works come under B.B.M.P. limits.

Assistant Engineer
Ward No. 09

Assistant Executive Engineer
Bruhat Bangalore Mahanagara Palike
Vidyaranyapura Sub Division

25/10
Executive Engineer
Bruhat Bangalore Mahanagara Palike
Byatarayanapura Division

25/10

ADMINISTRATIVE APPROVAL

Accorded For Rs. Twenty Eight Lakhs only

Head of A/c. P-3120

Div. Ref. No. 26/17-18 Date. 25/10/17.

AE 25/10

EE(BTP) 25/10

Technical Sanction
Accorded For 28.00 lakhs Rs
Head of A/C P3120
CER NO : 259 Dt:. 7/11/17

TA

CE (YNK)

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